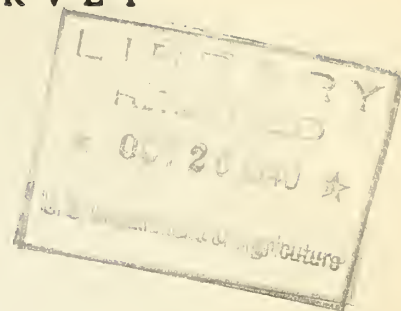


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THE INSECT PEST SURVEY
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THE STATE ENTOMOLOGICAL
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HESSIAN FLY SURVEY AT HARVEST TIME 1940

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Field surveys made by the Bureau of Entomology and Plant Quarantine stations at Manhattan, Kans., Lafayette, Ind., and Carlisle, Pa., and by the State agricultural experiment stations of Illinois, Ohio, and Missouri indicate that hessian fly infestations are low in wheatfields throughout Maryland, Delaware, northeastern and southern Virginia, south-central Pennsylvania, north-central North Carolina, Ohio, Indiana, Michigan, southern Illinois, west-central Tennessee, and northern and southeastern Missouri. There are, however, menacing populations of flies in local fields and areas in most of these States or districts.

Hessian fly infestations range from low to moderate in north-central Pennsylvania, northwestern Virginia, Kentucky, eastern Tennessee, eastern Illinois, and in south-central and eastern Kansas, with local infestations trending upward. No surveys were reported for Iowa, but fragmentary data indicate that infestations are from low to heavy in southeastern Nebraska. From moderate to heavy infestations of the hessian fly occur in eastern and western Pennsylvania and in southwestern Missouri. Observance of the safe-seeding dates is advised in all areas, because the season has been favorable for hessian fly and for growths of volunteer wheat.

The data summarized in the following table, and the accompanying map, indicate more fully the regions covered by the survey and the general trend of fly infestations. A field sample in the survey usually consisted of 50 wheat stems.

Area	Fields sampled Number	Stems infested		
		Average Percent	Maximum Percent	Minimum Percent
Kansas:				
South-central and eastern--	99	7.0	44	0
Missouri: ^{1/}				
Northern and southeastern--	19	0.3	2	0
Southwestern-----	12	14.0	30	0
Nebraska, southeastern-----	--	9.0	--	--
Illinois: ^{1/}				
Eastern-----	--	8.0	--	--
Southern-----	--	2.0	--	--
Michigan, southern-----	42	1.0	4	0
Indiana:				
Northern-----	141	1.0	10	0
Southern-----	186	5.0	32	0
Ohio: ^{1/}				
Northern-----	--	5.0	--	--
Southern-----	--	3.0	--	--
Kentucky:				
Western-----	15	10.0	34	0
East-central-----	23	9.0	50	0
Tennessee:				
West-central-----	37	6.0	36	0
Eastern-----	46	8.0	32	0
Pennsylvania:				
Western-----	15	18.0	46	0
North-central-----	20	8.0	26	0
South-central-----	35	5.0	26	0
Eastern-----	25	16.0	80	0
Delaware-----	10	5.0	16	0
Maryland:				
Western-----	25	6.0	44	0
Eastern-----	15	4.0	26	0
Virginia:				
Northwestern-----	20	9.0	52	0
Northeastern-----	40	2.0	16	0
Southern-----	15	2.0	6	0
North Carolina, north-central:	40	2.0	16	0

^{1/} Mostly from surveys by State entomologists.

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Numbers indicate percentage of stems infested.
Cross-hatching indicates areas of moderate to severe infestation.

